

Reduce Variation to Improve Flow - Summary

Causes of Variation of Demand: (a few examples)

1. **Seasonality** – Fluctuations due to time of year, e.g. winter vs. summer demand.
2. **Global disruptions** – Events like pandemics or wars.
3. **Competitor actions** – Competitors may affect demand if they have supply issues or promotions.
4. **Promotions** – Internal campaigns causing short-term demand surges.

And many more...

Causes of Variation of Capacity: (a few examples)

1. **Weather** – External factors like storms affecting capacity.
2. **Labour availability** – Employee absences or traffic delays.
3. **Supplier issues** – Delays in raw materials or components.
4. **Internal disruptions** – Management or other unplanned activities disrupting production.

Causes of Variation of Process: (a few examples)

1. **Set-ups and changeovers** – Downtime due to switching between tasks.
2. **Supply shortages** – Delays caused by lack of inputs.
3. **Coordination issues** – Internal mismanagement of work flows.
4. **Rework** – Fixing mistakes from earlier stages.

Identifying and reducing causes of variation in your demand, capacity and process is a very powerful and incredibly widely applicable source of fundamental operational improvement (and typically way overlooked!).